

Figure 1A

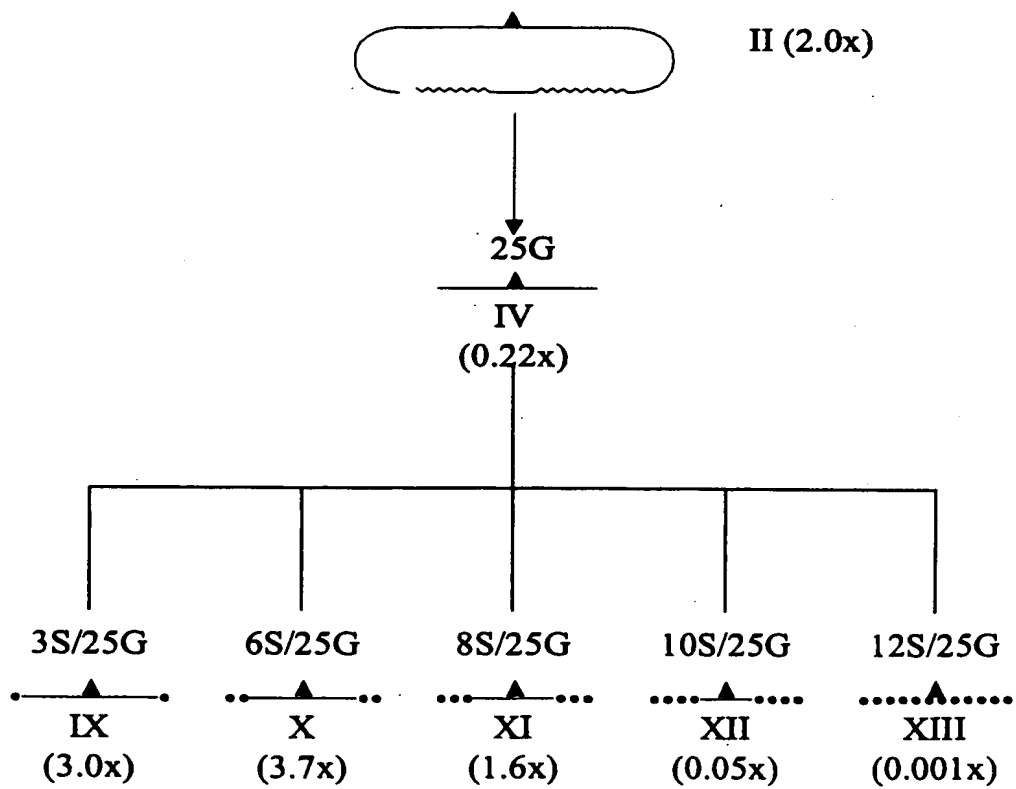
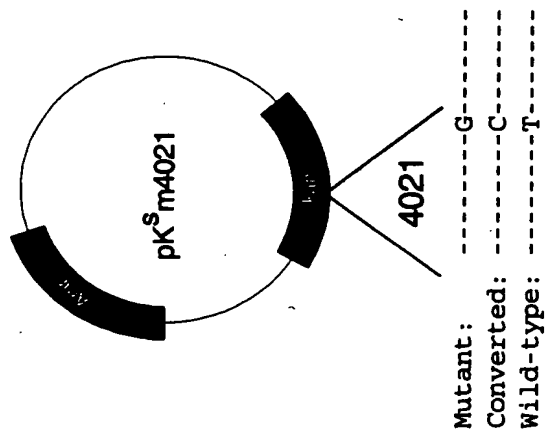
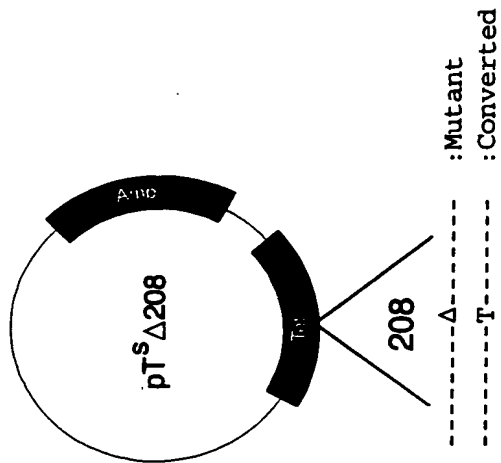
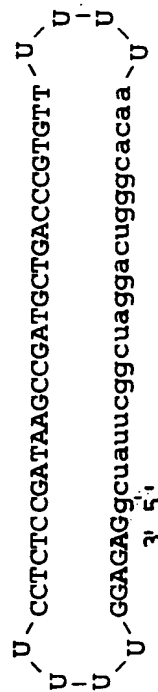


Figure 1B

# Plasmids, DNA targets and chimeric oligonucleotides



KanGG



TetΔ208T

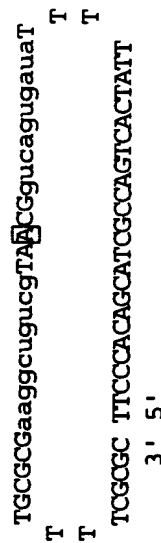
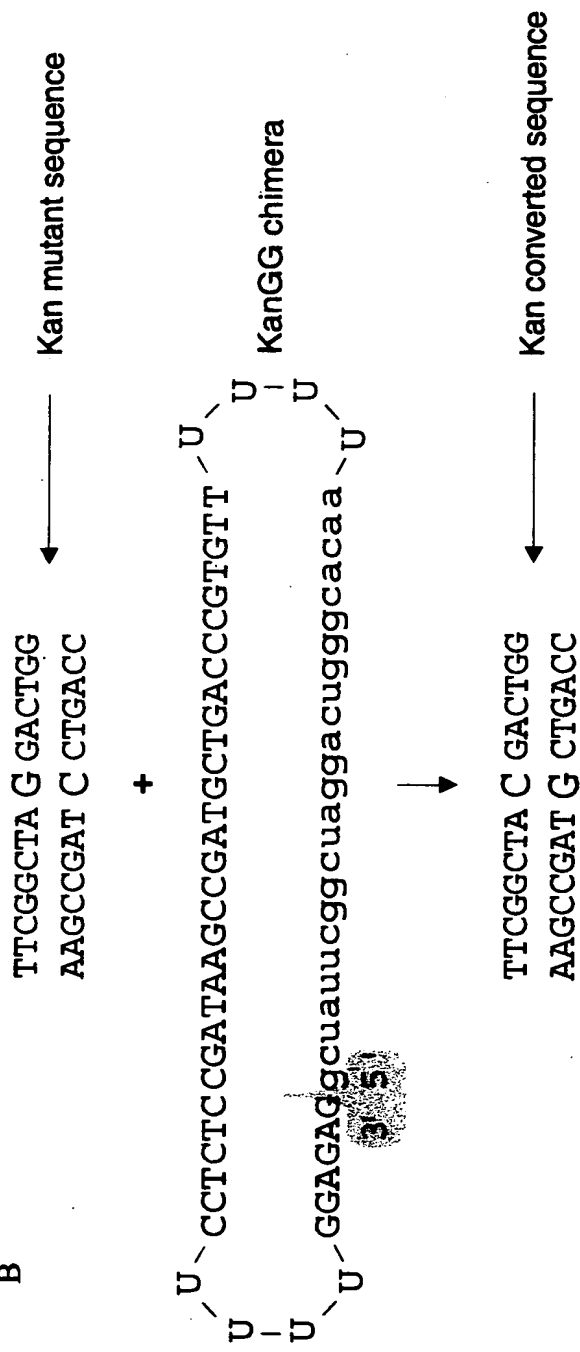


Figure 1C

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B



# DNA SEQUENCE ANALYSES

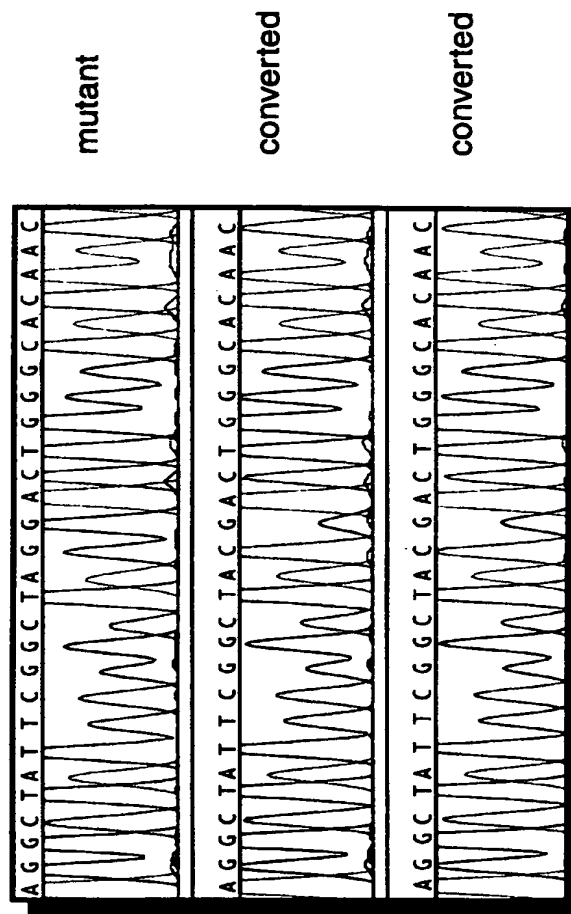


Figure 1D

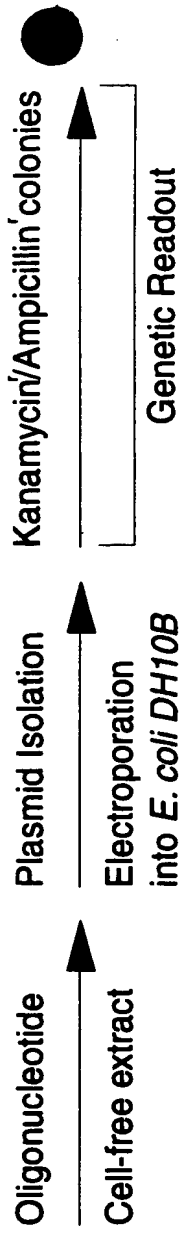
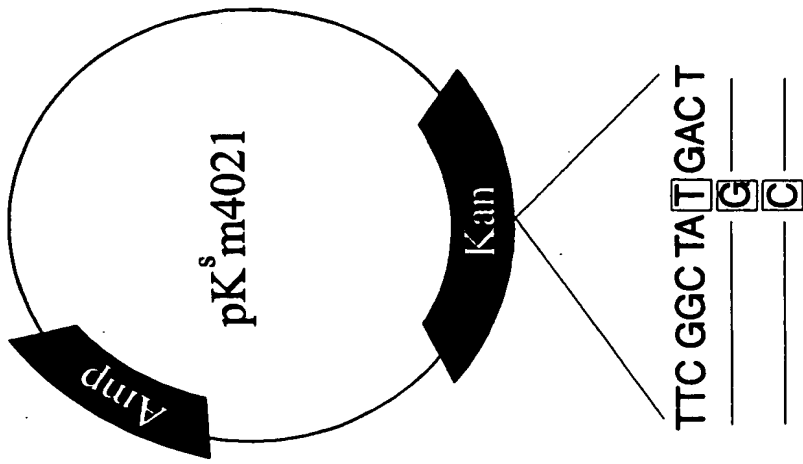
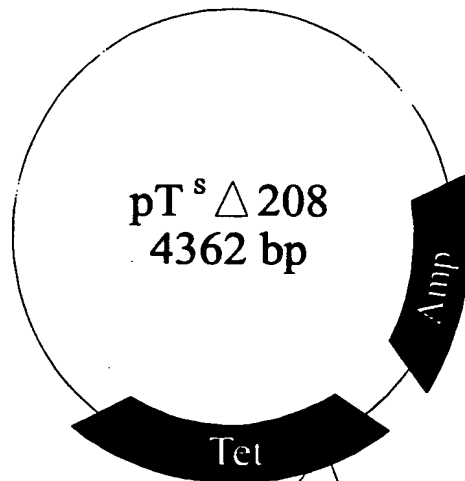


Figure 2

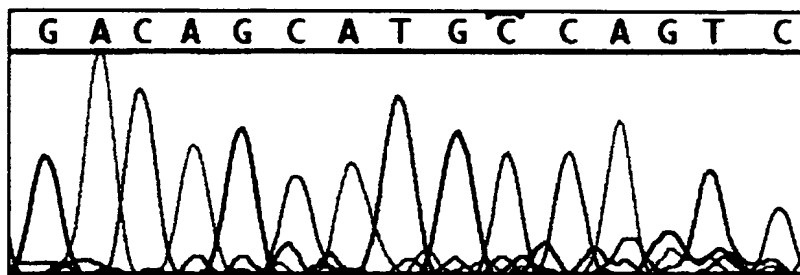


#208

Wild type: GAC AGC AT C GCCAGT  
 Mutant: GAC AGC AT - GCCAGT  
 Converted: GAC AGC AT T GCCAGT

### Sequence analysis of Tet<sup>r</sup> plasmid Δ208

Control



3S/25A

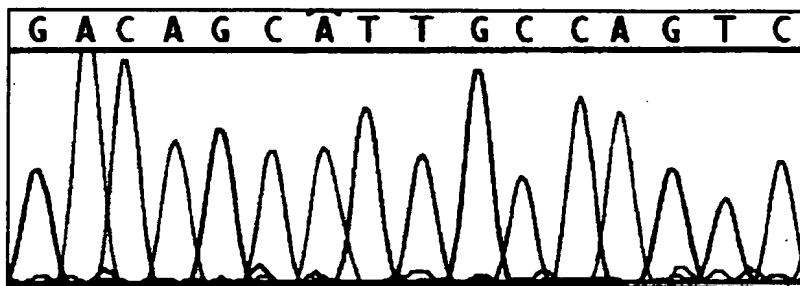
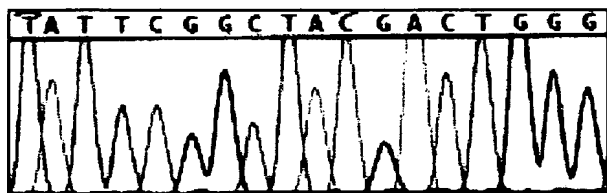


Figure 3

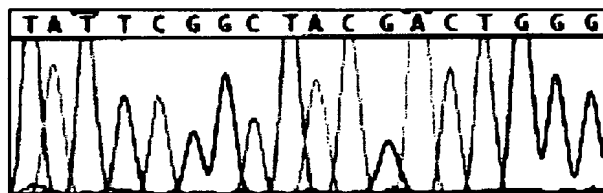
# DNA sequence analysis of Kan<sup>r</sup> plasmids

| Target codon distribution |      |     |         |      |      |
|---------------------------|------|-----|---------|------|------|
| oligomer                  | TAG  | TAC | TAC/TAG | TGG  | TCG  |
| 1) 3S/25G (20)            | ---- | +   | ---     | ---  | ---  |
| 2) 6S/25G (20)            | ---- | +   | ---     | ---  | ---  |
| 3) 8S/25G (20)            | ---- | +   | ---     | ---  | ---  |
| 4) 10S/25G (18)           | ---- | +   | ---     | +(2) | +(2) |
| 5) 25S/25G (4)            | ---  | --- | +(2)    | +(2) | ---  |

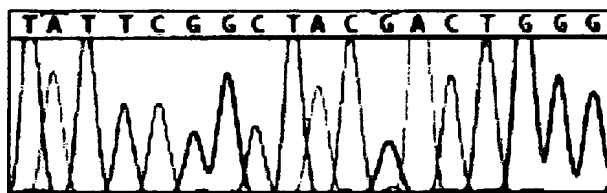
3S/25G



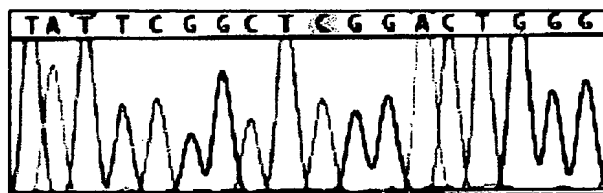
6S/25G



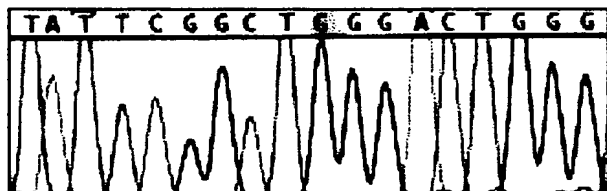
8S/25G



10S/25G



25S/25G



25S/25G



Figure 4

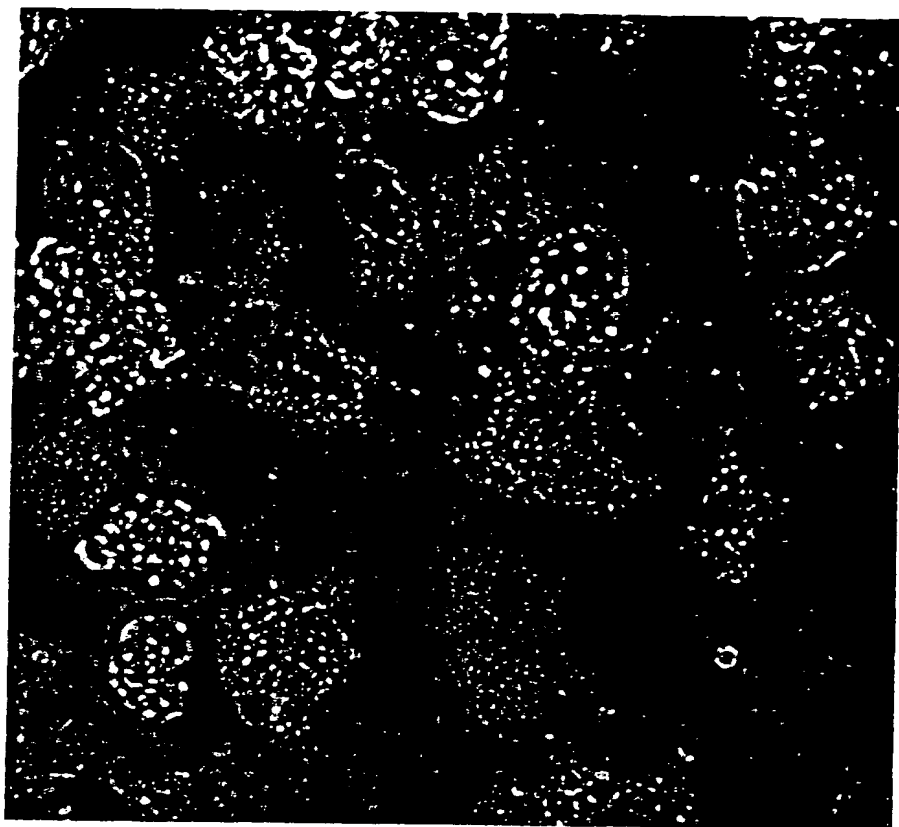


Figure 5

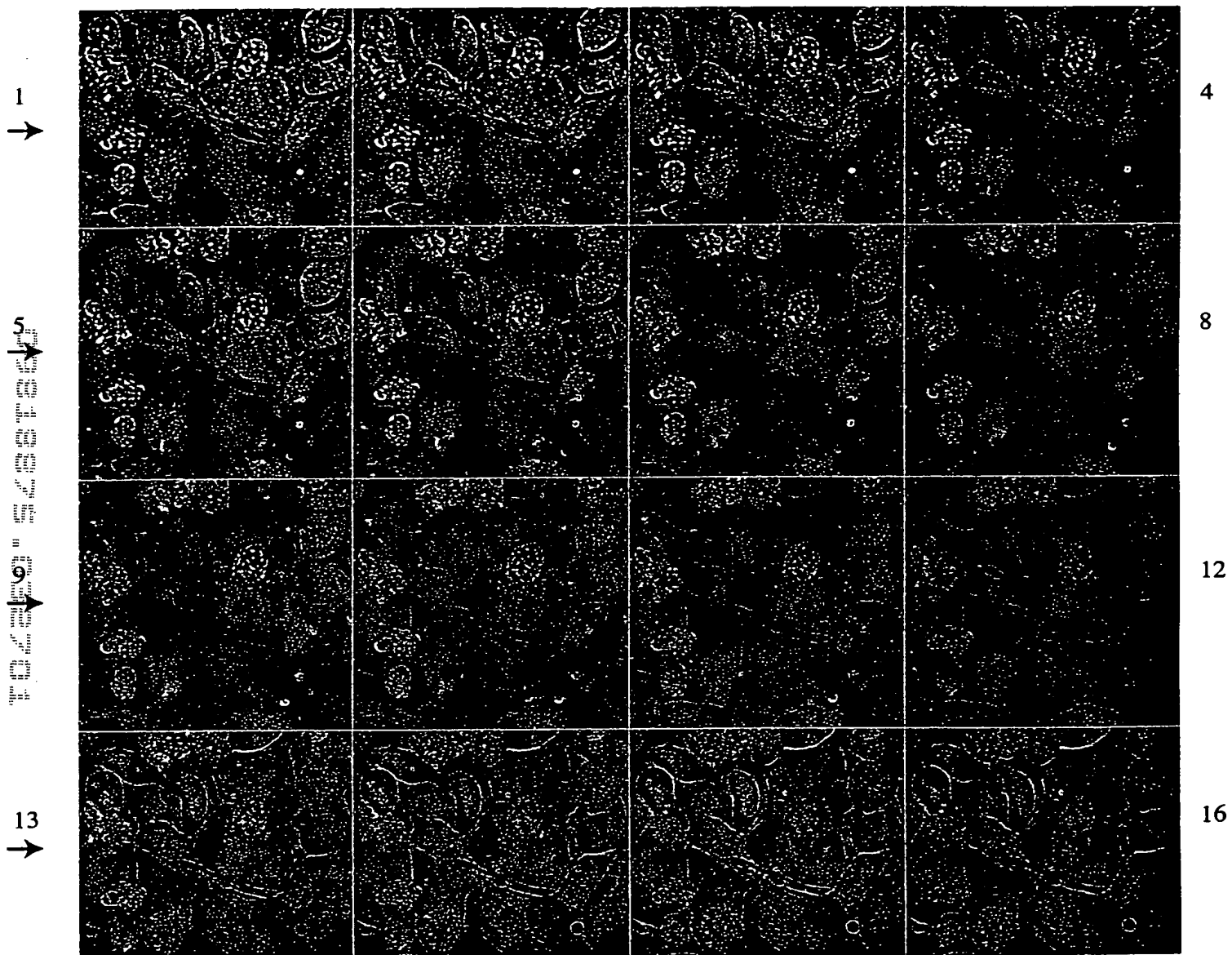


Figure 6

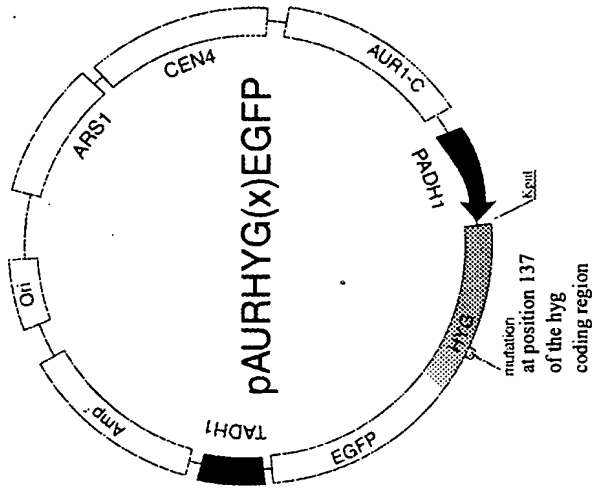


Figure 7A

Sequence of normal allele: GTGGATATGTCCT  
 Target/existing mutant: GTGGATAAATGTCCT  
 Desired alteration: GTGGATACGTCCT

Sequence of normal allele: GTGGATATGTCCT  
 Target/existing mutant: GTGGATAGGTCCT  
 Desired alteration: GTGGATACGTCCT

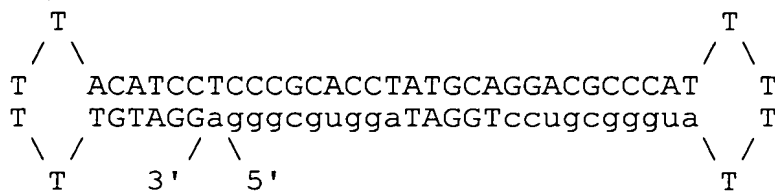
Figure 7B

HygE3T/25: 5'-AGG GCG TGG ATA CGT CCT GCG GGT A-3'

HygE3T/74: 5'-CTC GTG CTT TCA GCT TCG ATG TAG GAG GGC  
GTG GAT ACG TCC TGC GGG TAA ATA GCT GCG  
CCG ATG GTT TCT AC-3'

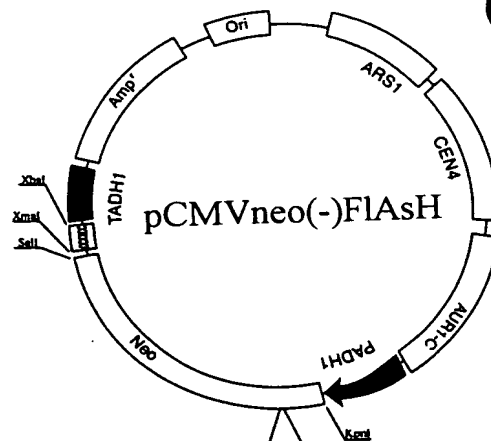
HygE3T/74α: 5'-GTA GAA ACC ATC GGC GCA GCT ATT TAC CCG  
CAG GAC GTA TCC ACG CCC TCC TAC ATC GAA  
GCT GAA AGC ACG AG-3'

HygGG/Rev:



Kan70T: 5'-CAT CAG AGC AGC CAA TTG TCT GTT GTG CCC AGT  
CGT AGC CGA ATA GCC TCT CCA CCC AAG CGG CCG GAG  
A-3'

Figure 8



TTCGGCTA G GACTGG  
AAGCCGAT C CTGACC

Neo/kan target  
mutant



TTCGGCTA C GACTGG  
AAGCCGAT G CTGACC

converted

### FUSION GENE FOR LIGAND BINDING

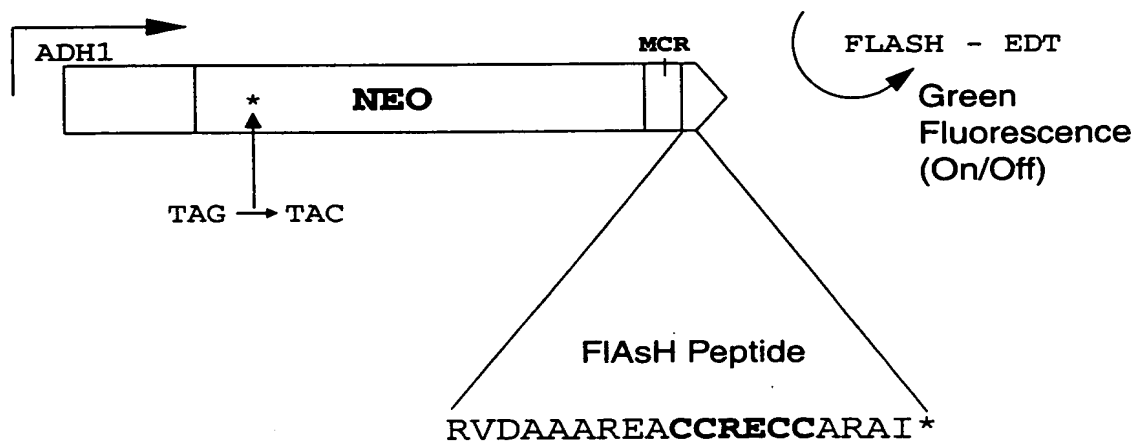


Figure 9

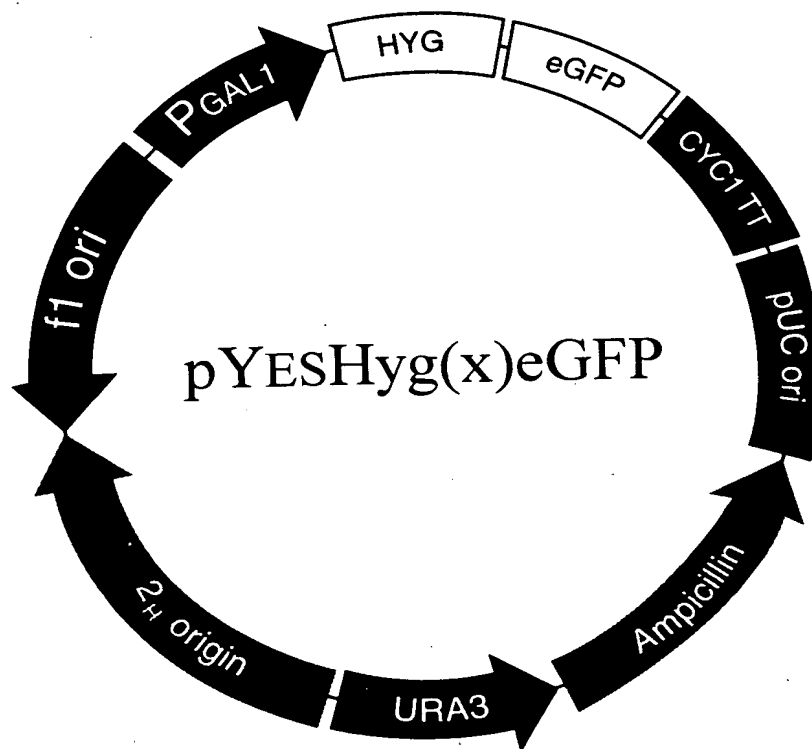


Figure 10